

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012059**Date Inspected:** 29-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Zhong An  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10 SOUTH TOWER LIFT 4 CORNER B/C DIAGONAL STIFFENER (GREEN TAG NO. 11601)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

SSTL4-1D/L-15~29, 46~60 (VT)

SSTL4-1D/L-15~20, 48~54 (UT)

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 10

NORTH TOWER LIFT 4 C/D CORNER REPAIR

SMAW welding of weld joint 1A/B(Repair) located on NSTL4-3B/L.

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Welder is identified as 057220. ZPMC QC is identified as Mr. Yuan Hui Gang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G(2F)-REPAIR.

## NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

FCAW welding of weld joint 20 located on NSTL4-3F/L.

Welder is identified as 066733. ZPMC QC is identified as Mr. Yuan Hui Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-4333-Tc-P4-F.

## NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

FCAW welding of weld joint 18 located on NSTL4-3F/L.

Welder is identified as 066733. ZPMC CWI is identified as Mr. Liu Zhong An.

The welding variables recorded by QC appeared to comply with WPS-B-T-4332-Tc-P4-F.

## SOUTH TOWER LIFT 5 A/B CORNER REPAIR

SMAW welding of weld joint 37B(Repair) located on SSD1-TL5-3B/F.

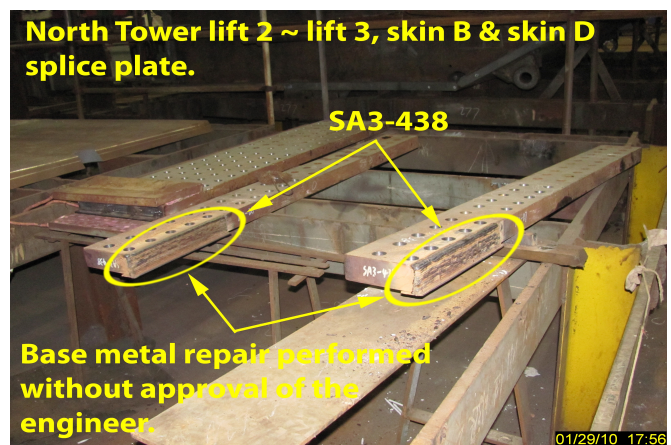
Welder is identified as 040365. ZPMC QC is identified as Mr. Li Peng Fei.

The welding variables recorded by QC appeared to comply with WPS-485-SMAW-1G(1F)-REPAIR.

During random in-process observations of the fabrication of North Tower lift2 ~ lift 3, skin B & skin D splice plates, this Quality Assurance (QA) inspector observed the deposition of weld metal (buttering/build up) by Shielded Metal Arc Welding (SMAW) process on the base metal edge of splice plates for skin B and skin D of North Tower lift 2 ~ lift 3. This base metal repair was performed without the approval of the Engineer. This build up was performed across the entire width of the edge and measured approximately 15mm thick and approximately 370mm in length. The material thickness is 60mm. The members are both identified as SA3-438. The members are located in Tower Bay 10.

The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest : 15000422360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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